

JAN 07 2005

Docket No. 741124-79

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Patent Application of ) **RESPONSE UNDER 37 CFR**  
Michael HERMANN ) **: 1.116 EXPEDITED PROCEDURE**  
Application No.: 09/817,797 ) **EXAMINING GROUP 2872**  
Filed: March 27, 2001 ) Examiner: A. V. Chang  
For: DEVICE FOR QUANTITATIVE )  
ASSESSMENT OF THE ALIGNED: )  
POSITION OF TWO MACHINE )  
PARTS, WORKPIECES OR THE :  
LIKE )

CERTIFICATE OF TRANSMISSION

I hereby certify that this correspondence is being facsimile transmitted to the United States Patent and Trademark Office: Fax No. (703) 872-9306 on January 7, 2005.

*Kathleen M. McManus*  
Kathleen M. McManus

**DECLARATION OF HEINZ P. BLOCH**

I, Heinz P. Bloch, declare that:

1. I am the owner of Process Machinery Consulting Co., hold Bachelor and Masters of Science degrees in Mechanical Engineering, I am a licensed professional engineer in the states of Texas and New Jersey, I hold five U.S. Patents including U.S. Patent No. 4,102,052 for a "DEFLECTION INDICATOR FOR COUPLINGS" for use in monitoring and determining axial deflection or positioning of a coupling, I have authored or co-authored over 300 technical papers, I have received several awards as an engineer including the ASME/STS Engineer of the Year Award (1995) and ASME Distinguished Service Award (2001).

2. I have reviewed the above identified patent application (hereafter, the HERMANN Application) including its specification and claims, and the positions stated by the Examiner in support of her decisions indicating that the claims do not define patentable subject matter, and also U.S. Patent No. 5,026,998 (hereafter, the Hölzl Patent) and "admissions" which form the basis of the Examiner's positions.

3. I understand that a significant aspect of the definition of the invention recited in claims 1, 3 and 4 is that two-dimensionally readable optoelectronic sensors are used to determine the relative alignment of two elements with respect to each other by a portion of at least one light beam incident on a surface of an optoelectronically active layer of one of the optoelectronic sensors being reflected by its surface directly as a light beam onto a surface of another of the two-dimensionally readable optoelectronic sensors, an electronic means receiving output signals from each of the optoelectronic sensors, processing the signals, and computing the relative position of the light source means relative to the incidences of the light beam on the surfaces of the two-dimensionally readable optoelectronic sensors. In particular, I understand a key issue to be whether or not it would have been obvious to use the reflectivity of as a means for directing light from one optoelectronic sensor to another.

4. A review page 5, lines 14-20 of the specification of the Hermann Application referred to by the Examiner merely indicates the existence of commercially available optoelectronic sensors that can be used in the practice of the invention of the Hermann Application. However, I find nothing in that description which would suggest knowledge of this fact by anyone other than the inventor of the Hermann Application. Furthermore, based on my knowledge and experience, the reflectivity of such sensors was never used for alignment determination purposes prior to the invention of the Hermann Application, nor was it recognized that the reflectivity of such sensors was sufficient for that purpose. To the contrary, the reflectivity of such sensors was generally treated as a characteristic which needed to be suppressed for alignment purposes by the use of an anti-reflectivity coating.

5. The Examiner's comments appear not to take into consideration either the lack of known reason to use the reflectivity of known optoelectronic sensors in an

alignment device or the factors that would necessarily have to have been recognized for someone to consider such use of the known optoelectronic sensors. That is, it would have to have been recognized that the reflectivity of the known optoelectronic sensors as well as their sensitivity would have been suitable for a sufficiently strong light source to be aimed at the first sensor without damaging it and that a sufficient amount of light would be reflected as a beam (not as dispersed light) to be readable at the other sensor in a way that would provide sufficiently accurate results. Apart from the Hermann Application, e.g., paragraph [0007] on page 2, I know of no recognition of this fact by those working in the alignment field.

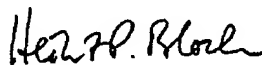
6. Furthermore, I can see no reason why anyone reviewing the Hölzl Patent would find it obvious to abandon his light transmissive arrangement and adopt the light reflective arrangement proposed in the Hermann Application. This is particularly the case because an entirely different positioning of the two sensors relative to each other and the light source would be required as can be appreciated from a comparison of Figs. 3 & 4 of the Hermann Application with Figs. 2 & 3 of the Hölzl Patent which, in turn, would require modification of the packaging of the components and how they would be usable on the shafts being aligned. Without a reason or motivation for making such wholesale changes (which I find to be totally absent from the Hölzl Patent, the Examiner's reasoning, and the state of the art as I am aware of it), it is simply not reasonable to think that those working in the field would find it obvious to change from an established practice to one that had never been previously considered.

7. Therefore, based on my experience in the field to which the invention of the Hermann Application is directed, and based on the facts noted above, the evidence indicates that one of ordinary skill in the art would not have been able to arrive at a device having the features of the claims of the Hermann Application based on

anything objectively derivable from the Hölzl Patent, and the mere existence of commercially available optoelectronic sensors that could be used to practice the invention of the Hermann Patent.

The undersigned Declarant declares further that all statements made herein of his own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the application or any patent issuing thereon.

January 4, 2005  
Date

  
\_\_\_\_\_  
Heinz P. Bloch, P.E.